CLAIMS

What is claimed is:

1. An optical module carrier for conveying an optical module to one or more stations in an optical test circuit, said optical module carrier comprising:

a tray having a top surface for supporting the optical module; and

a plurality of rollers for conveying said tray, said rollers each mounted in a bottom surface of said tray, each of said rollers extending a fixed distance below the bottom surface of said tray.

2. The optical module carrier of claim 1, further comprising vertical pillars for securing said optical module on the top surface of the optical module carrier.

3. The optical module carrier of claim 2, wherein at least one said vertical pillars clamps said optical module onto the top surface of the optical module carrier.

4. The optical module carrier of claim 2, wherein at least one said vertical pillars includes a slot for holding said optical module carrier.

Sub B2

5. The optical module carrier of claim 1, further comprising a plurality of springs corresponding to said plurality of rollers, each of said springs mounted in the bottom surface of said tray between said plurality of rollers and said optical module carrier.

Sub C4

6. The optical module carrier of claim 5, wherein each of said plurality of rollers is a ball.

7. An optical module carrier for conveying an optical module to one or more stations in an optical test circuit, said carrier comprising:

base means for supporting the optical module, said base means having a top surface and a bottom surface;

securing means for securing the optical module to the top surface of said base means; and

rolling means for conveying said base means, said rolling means attached to the bottom surface of said base means, said rolling means extending a fixed distance below the bottom surface of said base means.

Sub B3

8. The optical module carrier of claim 7, further comprising means for elevating said optical module a desired distance above the bottom surface of said base means.

9. The optical module carrier of claim 7, wherein said rolling means comprises a plurality of balls.

10. An apparatus for inspecting an optical device on an optical module, comprising:

an optical platform;

an inspection station disposed along a top surface of said optical platform having an optical device interface located a fixed distance above the top surface of said optical platform; and

an optical module carrier for holding the optical module and conveying the optical module along the top surface of said optical platform to the inspection station, said optical module carrier positioning said optical device at a distance above the optical platform corresponding to the fixed distance said optical device interface is located above the top surface.

11. The apparatus of claim 10 wherein said optical platform has a top surface coated with a silicone based coating.

12. The apparatus of claim 10, wherein said optical inspection station comprises a microscope.

13. The apparatus of claim 10, wherein said optical module carrier further comprises:

a tray having a top surface for supporting the optical module; and

a plurality of rollers for conveying said tray, said rollers each mounted in a bottom surface of said tray, each of said rollers extending a fixed distance below the bottom surface of said tray.

14. The apparatus of claim 10, wherein said optical module carrier further comprises:

vertical pillars for securing said optical module on the top surface of the optical module carrier.

15. The apparatus of claim 13, wherein said optical module carrier further comprises:

a plurality of springs corresponding to said plurality of rollers, each of said springs mounted in the bottom surface of said tray between said plurality of rollers and said optical module carrier.

16. A method of inspecting an optical device on an optical module at an optical module test station located on an optical platform, wherein the optical module test station has an optical

device interface located a fixed distance above a top surface of the optical platform, said method comprising:

securing the optical module to a top surface of an optical module carrier having rolling means for conveyance;

conveying the optical module to the optical module test station along a top surface of the optical platform such that the optical device is located a fixed distance above the top surface of said optical platform; and

inspecting the optical device at the optical module test station.

17. An apparatus for inspecting an optical device on an optical module, comprising:

an optical platform having a top surface divided into an X-Y Cartesian coordinate grid;

an inspection station disposed along a top of said optical platform having an optical device interface located at a predetermined X-Y coordinate along said Cartesian coordinate grid, said optical device interface located a fixed distance above the top surface of said optical platform;

an optical module carrier for holding the optical module, said optical module carrier positioning said optical device at a distance above the optical platform corresponding to the fixed

distance said optical device interface is located above the top surface; and

means for automatically conveying the optical module along a top surface of said optical platform to the predetermined X-Y coordinate where said optical interface of said inspection station is located.

18. The apparatus of claim 17, wherein said means for automatically conveying the optical module comprises a movable arm attached to said optical module carrier.

19. The apparatus of claim 18, wherein said means for automatically conveying the optical module further comprises:

a programmable processor for executing a program for providing control signals to control said movable arm; and

memory for storing data identifying said predetermined X-Y coordinate along said Cartesian coordinate grid where said optical interface of said inspection station is located.

20. The apparatus of claim 17, wherein said means for automatically conveying the optical module comprises:

rolling means for transporting said optical module carrier; and

an electric motor for turning said rolling means.

21. The apparatus of claim 20, wherein said means for automatically conveying the optical module further comprises:

a programmable processor for executing a program for providing control signals to control said movable arm; and

memory for storing data identifying said predetermined X-Y coordinate along said Cartesian coordinate grid where said optical interface of said inspection station is located.

22. A method of inspecting an optical device on an optical module at an optical module test station located on an optical platform having a top surface divided into an X-Y Cartesian coordinate grid, wherein the optical module test station has an optical device interface located at a predetermined X-Y coordinate along the Cartesian coordinate grid and at a fixed distance above the top surface of the optical platform, said method comprising:

securing the optical module to a top surface of an optical module carrier having rolling means for conveyance;

placing the optical module carrier on the top surface of the optical platform;

automatically conveying said optical module to the predetermined X-Y coordinate and positioning said optical device at a distance above the optical platform corresponding to the

fixed distance said optical device interface is located above the top surface; and

inspecting the optical device at the optical module test station.

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